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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/019,123	10/25/2001	Masahiro Serizawa	P/1909-154	8062

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EXAMINER

ARMSTRONG, ANGELA A

ART UNIT	PAPER NUMBER
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2654

DATE MAILED: 12/17/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/019,123

Applicant(s)

SERIZAWA, MASAHIRO

Examiner

Angela A. Armstrong

Art Unit

2654

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 25 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
 - ☐ Certified copies of the priority documents have been received in Application No. _____.
 - ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

1. Claims 1-2 and 8-9 are rejected under 35 U.S.C. 102(e) as being anticipated by Zhao (US Patent No. 6,480,823).

2. Regarding claims 1 and 8, Zhao discloses a speech/non-speech frame discriminator for determining for each predetermined period whether an input signal is a speech signal or a non-speech signal, characterized by comprising band conversion means for converting the band of said input signal and discrimination means for making said discrimination based on the signal after the band conversion (col. 2, lines 32-65; col. 1, lines 29-42; col. 3, lines 28-47).

Regarding claims 2 and 9, Zhao discloses the discrimination means is designed for signals limited to a predetermined band (col. 1, lines 29-42; col. 3, lines 28-47).

3. Claims 3-4 and 10-11 are rejected under 35 U.S.C. 102(e) as being anticipated by Nakamura (US Patent No. 5,937,375).

4. Regarding claims 3 and 10, Nakamura discloses a speech/non-speech frame discriminator for determining for each predetermined period whether an input signal is a speech signal or a non-speech signal, characterized by comprising dividing means for making a division into shorter periods than said predetermined period, discrimination means for making said discrimination for each short period, and unit length conversion means for making discrimination for said predetermined period based on the results for the short periods (col. 2, lines 34-62; col.9, line 36 to col. 11, line 23; Figure 6, Figure 4; col. 12, lines 1-19).

Regarding claims 4 and 11, Nakamura discloses the said unit length conversion means determines said predetermined period to be a speech period when any of said short periods is determined to be a speech period (col. 2, lines 34-62; Figure 4; col. 9, line 3 to col. 11, line 23).

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 5-7 and 12-20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Nakamura in view of Zhao.

6. Regarding claims 5-7 and 12-20, Nakamura does not teach band conversion for converting the band of the input signal or discrimination means designed for signals limited to a predetermined band. Zhao discloses speech detection for noisy conditions which implements band conversion means for converting the band of said input signal and discrimination means for making said discrimination based on the signal after the band conversion (col. 2, lines 32-65; col. 1, lines 29-42; col. 3, lines 28-47). Zhao teaches the system is advantageous in effectively detecting speech in noisy conditions.

Therefor, it would have been obvious to one of ordinary skill at the time of the invention to modify the system of Nakamura to implement band conversion for converting the band of the input signal or discrimination means designed for signals limited to a predetermined band, as taught by Zhao, for the purpose of ensuring accurate and effective speech detection in a noisy environment, as suggested by Zhao.

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Conclusion

7. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Angela A. Armstrong whose telephone number is 703-308-6258. The examiner can normally be reached on Monday-Thursday 7:30-5:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Richemond Dorvil can be reached on (703) 305-9645. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Angela A. Armstrong
Examiner
Art Unit 2654

AAA
December 10, 2004

Angela Armstrong